

REMARKS

This is a full and timely response to the outstanding non-final Office action electronically delivered on July 28, 2010. Reconsideration and allowance of the application and presently pending claims 1-4, 13 and 15 are respectfully requested.

Present Status of the Application

Applicants thank the Examiner for the thorough examination of this application.

In the instant Office action, claims 1-4, 13 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1-4, 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quigley (U.S. Pat. No. 5,781,388; hereinafter “Quigley”) in view of Lin (U.S. Pat. No. 5,982,601; hereinafter “Lin”) and Ker et al. (U.S. Pat. No. 5,754,380; hereinafter “Ker”). Claims 1-4, 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin in view Ker.

After carefully considering the Office Action and the cited references, Applicants have amended claims 1 and 2 to respectfully traverse all the rejections on the grounds set forth in detail below. No new matter has been entered since the amendment is fully supported by FIGs. 4, 5A, 5B and the related description thereof as originally filed. Applicants thereby respectfully assert that all the pending claims 1-4, 13 and 15 are placed in proper condition for allowance. Reconsideration of all the pending claims is respectfully requested.

Discussion of the claim rejections under 35 U.S.C. 112

Claims 1-4, 13 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Responsive thereto, Applicants have amended claims 1 and 2. Specifically, the claimed limitation of a second diode in claim 1 is amended as the first diode, and the claimed limitation of a first diode in claim 2 is amended as the second diode. Accordingly, the Section 112 rejections of claims 1-4, 13 and 15 no longer stand proper, and therefore the withdrawal of said rejections is courteously requested.

Discussion of the claim rejections under 35 U.S.C. 103

Claims 1-4, 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quigley in view of Lin and Ker.

Claims 1-4, 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin in view Ker.

In response thereto, Applicants have amended claim 1 to patently define the present application over the cited references. Applicants hereby traverse these rejections on the grounds set forth in detail below.

Pertaining to claim 1 of the present invention, as currently amended, it recites in part as below:

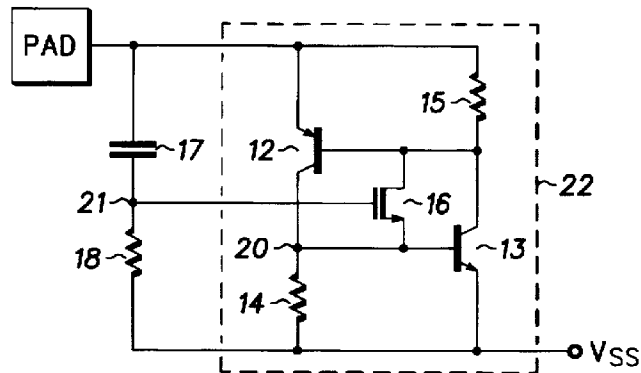
“An electrostatic discharge (ESD) protection circuit, comprising:

...

a first diode, having a first input end coupled to the I/O pad and a second input end coupled to the fourth connection terminal, wherein **the anti-latch-up circuit determines whether or not to trigger the SCR circuit in accordance with whether the second diode is conducted so as to prevent latching up of the SCR circuit during normal operation.**” (*Emphasis added*)

Applicants respectfully submit that Quigley and Lin are deficient in reciting “a first diode...wherein the anti-latch-up circuit determines whether or not to trigger the SCR circuit **in accordance with whether the first diode is conducted** so as to prevent latching up of the SCR circuit during normal operation.”

Referring to Fig. 1 and column 6, lines 60-67 of the Quigley disclosure, the voltage divider circuit formed by the capacitor 17 and the resistor 18 is directly electrically connected to the PAD. Moreover, in order to prevent the voltage divider circuit from affecting the IC circuit, the voltage transmitted to the PAD is required to be greater than a voltage value (e.g., the operating voltage of the IC circuit) before the voltage divider triggers the SCR. In other words, Quigley merely teaches the voltage divider circuit triggering the SCR according to the **magnitude of the voltage on the PAD.**



On the other hand, referring to Fig. 6B of the Lin disclosure, the transient oscillator circuit 61 taught by Lin is also directly electrically connected to the PAD or the VDD BUS. Therefore, in practical operation, Lin's transient oscillator circuit 61 also determines whether to trigger SCR based on the magnitude of voltage on the PAD or the VDD BUS.

"[O]bviousness requires a suggestion of all limitations in a claim." *CFMT, Inc. v. Yieldup Int'l. Corp.*, 349 F.3d 1333, 1342 (Fed. Cir. 2003) (citing *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)).

Accordingly, neither Quigley nor Lin teaches at least the feature of the claimed anti-latch-up circuit and the claimed first diode recited in the amended claim 1, "wherein the anti-latch-up circuit determines whether or not to trigger the SCR circuit **in accordance with whether the first diode is conducted** so as to prevent latching up of the SCR circuit during normal operation." Moreover, Ker is also deficient in teaching said feature. Therefore, the teachings of Quigley, Lin, and Ker, in any combination, fail to render the invention set forth in claim 1 obvious. Applicants respectfully submit that claim 1 is patentable and allowable over the cited references.

If an independent claim is non-obvious under 35 U.S.C. Section 103, then any claim depending therefrom is non-obvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

As such, claims 2-4, 13 and 15 directly or indirectly depending upon the allowable claim 1 should be allowed as a matter of law. Withdrawal of the 103 rejections is accordingly requested.

CONCLUSION

For at least the foregoing reasons, it is believed that all the pending claims 1-4, 13 and 15 of the present application patently define over the prior art and are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

Respectfully submitted,
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